

### **REMARKS**

Claims 1, 2, 8, and 9 were examined and reported in the Office Action. Claims 1, 2, 8, and 9 are rejected. Claims 1 and 8 are amended. Claims 1, 2, 8, and 9 remain.

Applicant requests reconsideration of the application in view of the following remarks.

#### **I. 35 U.S.C. §102**

It is asserted in the Office Action that claims 1, 2, 8, and 9 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2003/0022030 issued to Chang ("Chang"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2131,

'[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). 'The identical invention must be shown in as complete detail as is contained in the ... claim.' (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Applicant's amended claim 1 contains the limitations of

a microwave tunable device is included in a phase array antenna system, the microwave tunable device including: a MgO substrate; a ferroelectric/dielectric ( $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$  (BST) thin film oriented in a (111) direction which is formed on the MgO substrate, wherein x is a number and represents a composition ratio; and an interdigital single layer electrode pattern formed on the ferroelectric/dielectric BST thin film and separated from the MgO substrate.

Applicant's amended claim 8 contains the limitations of

a microwave tunable device is included in a satellite communication system, the microwave tunable device including: a MgO substrate; a ferroelectric/dielectric ( $\text{Ba}_{1-x}\text{Sr}_x$ ) $\text{TiO}_3$  (BST) thin film oriented in a (111) direction which is formed on the MgO substrate, wherein x is a number and represents a composition ratio; and an interdigital single layer electrode pattern formed on the ferroelectric/dielectric BST thin film and separated from the MgO substrate.

Applicant has amended claims 1 and 8 to contain the limitations of a single layer electrode pattern formed on the ferroelectric/dielectric BST thin film and separated from the MgO substrate. As illustrated in Applicant's Fig. 1B, Applicant's electrode pattern is an interdigital single layer electrode pattern formed on the ferroelectric/dielectric BST thin film and separated from the MgO substrate.

Chang discloses strain-relieved tunable dielectric thin films. Chang further discloses single gap planar electrodes 22 (see Chang, Figs. 5A-B, paragraph [0038]. Chang, however, does not teach, disclose or suggest an interdigital capacitor. That is, nowhere in Chang is an interdigital single layer electrode pattern formed on the ferroelectric/dielectric BST thin film and separated from the MgO substrate disclosed, taught or suggested.

Therefore, since Chang does not disclose, teach or suggest all of Applicant's amended claims 1 and 8 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. §102(e) has not been adequately set forth relative to Chang. Thus, Applicant's amended claims 1 and 8 are not anticipated by Chang. Additionally, the claims that directly depend from Applicant's amended claims 1 and 8, namely claims 2, and 9, respectively, are also not anticipated by Chang for the same above reason.

Accordingly, withdrawal of the 35 U.S.C. §102(e) rejection for claims 1, 2, 8, and 9 is respectfully requested.

**CONCLUSION**

In view of the foregoing, it is believed that all claims now pending, namely 1-2 and 8-9, patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,

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By: \_\_\_\_\_

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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, Virginia 22313-1450 on October 13, 2006.

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Jean Svoboda